



# **Alaska Operator Certification Program Report for State Fiscal Year 2021**

**September 2021**



***Mike Dunleavy, Governor***

***Kevin Meyer, Lieutenant Governor***

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## Executive Summary

The Safe Drinking Water Act Amendments of 1996 directed the Administrator of the United States Environmental Protection Agency, in cooperation with the States, to develop, implement, and enforce minimum standards for certification and recertification of operators of community and non-transient non-community public water systems. This annual program report for the Alaska Operator Certification Program is submitted pursuant to federal guidelines published in the Federal Register dated February 5, 1999, and in accordance with the guidelines provided by the EPA Drinking Water Protection Division. Alaska's annual operator certification report provides an update on the implementation of the Operator Certification Program for the period from July 1, 2020, through June 30, 2021.

Alaska currently regulates 655 community, non-transient non-community, and transient non-community<sup>1</sup> public water systems. In State Fiscal Year 2021 (SFY21), 80% of all water systems were compliant with the operator certification requirements by having operators certified at levels commensurate with the systems' classifications. During SFY21, the Alaska Operator Certification Program continued efforts to classify water systems, certify operators, and track and improve compliance rates.

The public health objectives of the Operator Certification Program are to ensure that the customers of Alaskan public water systems are provided with an adequate supply of safe, potable drinking water, are confident that their water is safe to drink, and that the operators are trained and certified as well as have the knowledge and understanding of public health reasons for drinking water standards.

## Antibacksliding

The implementation of the federal requirements and level of service provided by the Alaska Operator Certification Program remains the same, and no backsliding has occurred since submitting the annual report covering SFY20.

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<sup>1</sup> Per 18 AAC 74.006 and 18 AAC 74.400, transient non-community water systems using surface water or groundwater under the influence of surface water as a source are required to have properly certified water operators .

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## Authorization (Baseline Standard 1)

Under the Safe Drinking Water Act (SDWA) Amendments of 1996, the State primacy agency is required to implement an Operator Certification Program and to provide annual reports in order to receive the full federal allocation under the Drinking Water State Revolving Fund (DWSRF). The Environmental Protection Agency (EPA) may withhold 20% of the State's funding if the Operator Certification Program requirements are not met.

The Alaska Department of Environmental Conservation (ADEC) is the designated State primacy agency for the Safe Drinking Water Act. The Operator Certification Program (OpCert) is housed within the ADEC's Division of Water and is responsible for classifying water systems and certifying operators. Additionally, the Governor's Water and Wastewater Works Advisory Board (Board), comprised of eight water/wastewater professionals appointed to five-year terms by the Governor, provides counsel regarding critical programmatic efforts and decisions.

In response to federal guidelines, the Alaska Operator Certification Program regulations were revised in 2001 to include oversight of all community, non-transient non-community systems, and transient non-community systems that use surface water or groundwater under the influence of surface water as a source. Prior to 2001, OpCert only regulated systems serving populations of greater than 500 people or having greater than 100 service connections. Since 2001, OpCert's implementation of the program has consistently been approved by EPA as compliant with the 1996 Amendments to the SDWA.

## Classification of Systems, Facilities, and Operators (Baseline Standard 2)

Water systems in Alaska are classified according to a point rating system that includes the production capacity, source water type, and complexity of the treatment processes. Water systems are divided into the following three categories:

- Small Water Systems:
  - Small Untreated Water Systems: Community water systems (CWS) and non-transient non-community water systems (NTNCWS) that serve fewer than 500 people, fewer than 100 service connections, and add no chemicals to the water. Small untreated systems may perform passive treatment such as softening or cartridge filtration.
  - Small Treated Water Systems: CWS, NTNCWS, and transient non-community water systems (TNCWS) that serve fewer than 500 people, fewer than 100 service connections, and add one chemical to the water. Small treated systems may perform passive treatment such as softening or cartridge filtration.
- Water Treatment Systems:
  - CWS, NTNCWS, and TNCWS that are required to have a certified operator per 18 AAC 74.006 and classified as classes 1 – 4 by using the point rating system in 18 AAC 74.120.

- Water Distribution Systems:
  - CWS and NTNCWS where no water treatment is taking place, are required to have a certified operator per 18 AAC 74.006, and classified as classes 1 – 4 per 18 AAC 74.120.

While the classifications of existing systems have been documented, constant attention must be paid to keep the data current as systems evolve, as well as to classify new systems.

The 655 Alaskan CWS, NTNCWS, and TNCWS requiring certified operators are classified as follows:

System Type	Class	Number of Systems
Small	Untreated	282
Small	Treated	123
Water Treatment	1	101
Water Treatment	2	115
Water Treatment	3	7
Water Treatment	4	3
Water Distribution	1	19
Water Distribution	2	3
Water Distribution	3	2

**Table 1: System Types**

Classification efforts continued using a variety of methods during the State Fiscal Year 2021 (SFY21) reporting period.

- OpCert distributed detailed classification data to all system owners. Owners were asked to review data for accuracy and respond when necessary.
- As in the past, OpCert continued to work closely with the Drinking Water Program (DWP) during the plan review process. DWP considers operator certification requirements and consults with OpCert when issuing approvals to construct and operate.
- OpCert staff reviewed sanitary survey reports, provided by DWP, which contain updated information regarding the current configuration of water systems.
- OpCert worked closely with engineers from the Village Safe Water Program (VSW) and the Alaska Native Tribal Health Consortium (ANTHC), as well as consulting engineers, who are required to consult with OpCert regarding classification issues as systems are being designed or modified.



## Operators in Responsible Charge of Water Systems

All public water systems are required to have a designated operator in responsible charge (ORC) who holds certification at a level equal to or greater than the classification of the system. For water treatment and water distribution systems, the ORC must be on-site at the system or, if off-site, the ORC must be available by radio or telephone and be on-site at the system within an hour. For small untreated and small treated water systems, the ORC must be on-site at the system or, if off-site, the ORC must be available by radio or telephone and be on-site at the system within three hours. The ORC makes all operational decisions.

The following chart summarizes water system compliance at the end of SFY21.

System Class	Number of Systems	Without Certified ORC	With Certified ORC	Percent With Certified ORC	With Certified ORC at the Correct Level	Percent With Certified ORC at the Correct Level
SU	282	43	239	85%	239	85%
ST	123	13	110	89%	110	89%
WT 1	101	27	74	73%	72	71%
WT 2	115	22	93	81%	73	63%
WT 3	7	0	7	100%	7	100%
WT 4	3	0	3	100%	3	100%
WD 1	19	0	19	100%	19	100%
WD 2	3	1	2	67%	1	33%
WD 3	2	0	2	100%	2	100%
Total	655	106	549	84%	526	80%

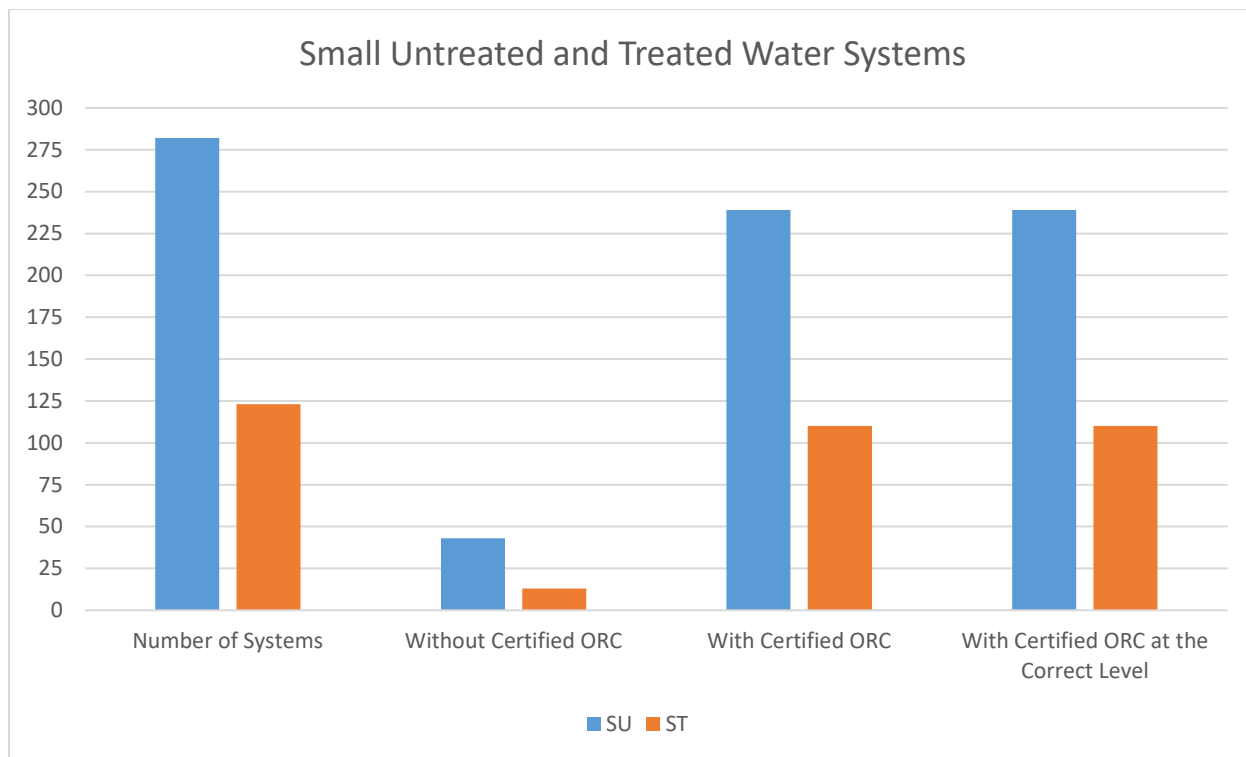
**Table 2: Compliance by System Type**

SU = Small Untreated

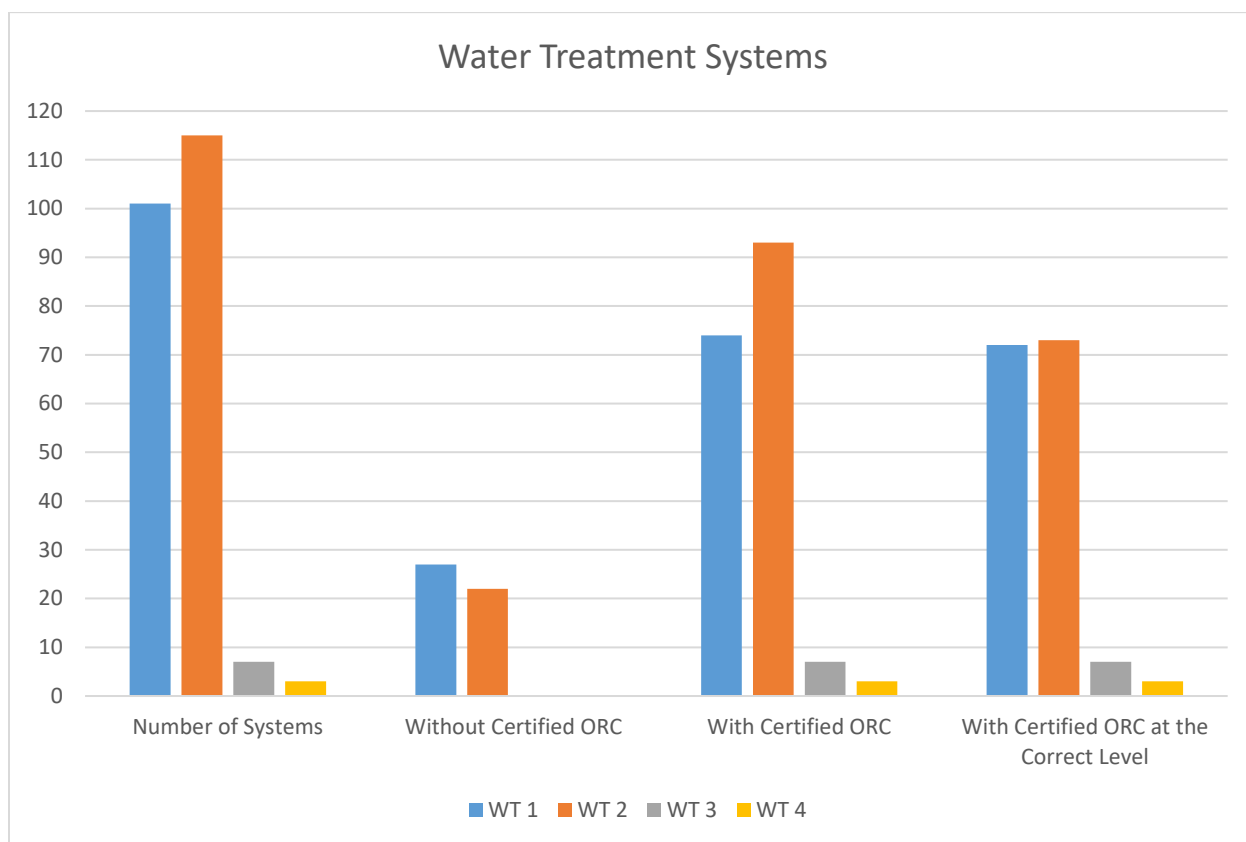
WT = Water Treatment

ST = Small Treated

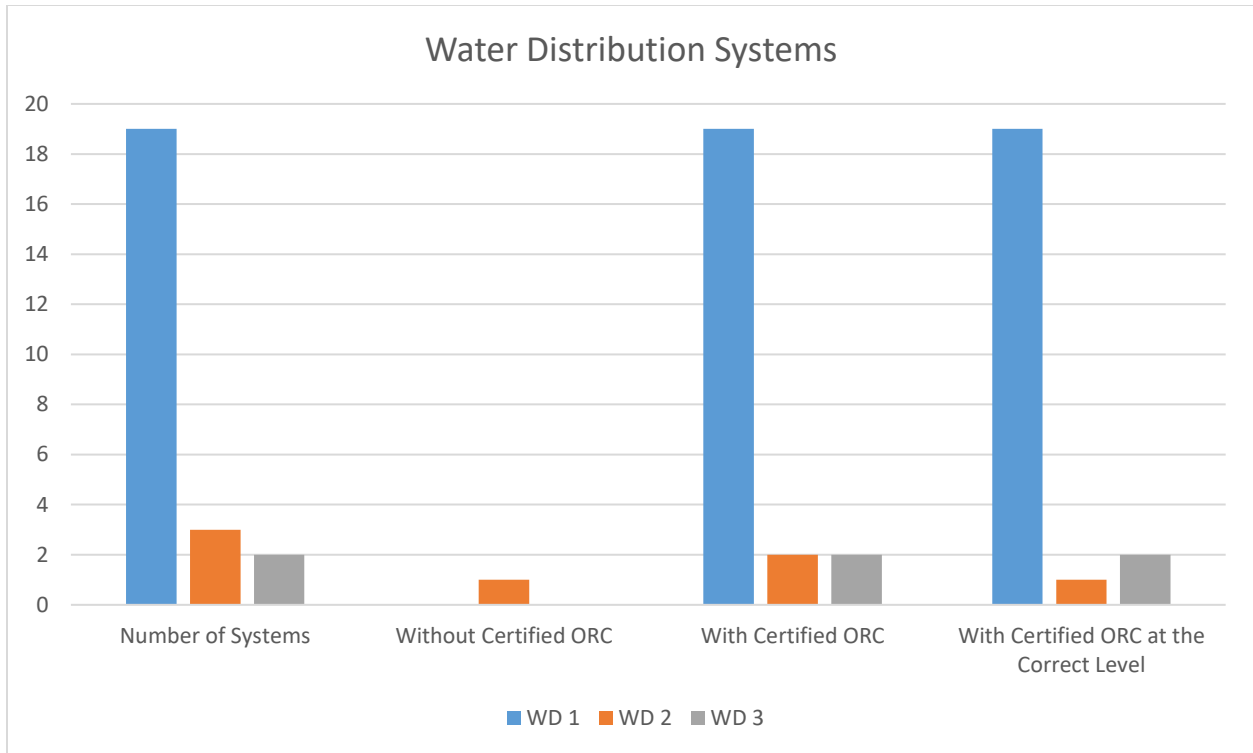
WD = Water Distribution



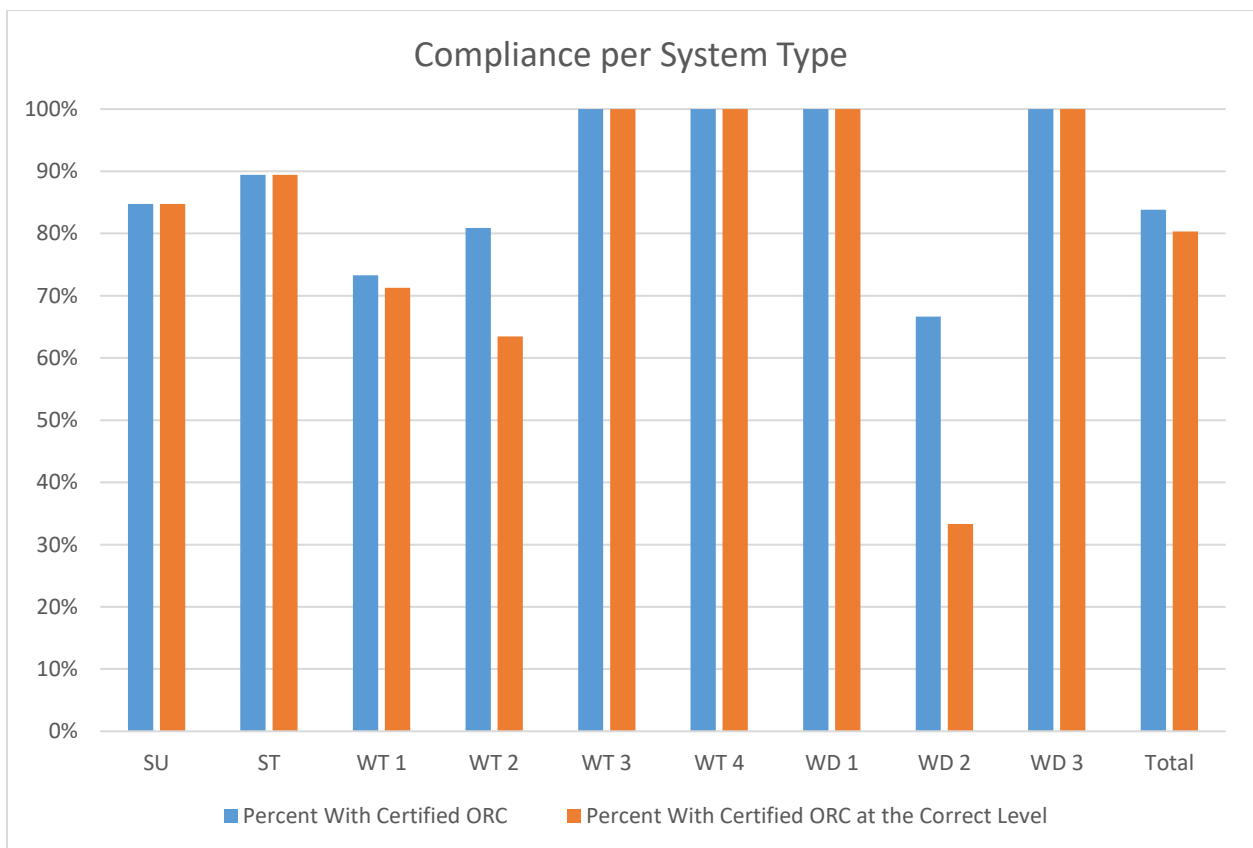
**Figure 1: Small Water System Compliance**



**Figure 2: Water Treatment System Compliance**



**Figure 3: Water Distribution System Compliance**



**Figure 4: Compliance per System Type**

## Maintaining Operator and System Information

ORC compliance data is updated in the OpCert database using the following methods:

- Upon certification, operators are associated with systems based on information provided in their applications.
- Operator data is updated when OpCert staff review Sanitary Survey reports provided by DWP.
- Operator data is included as part of the routine notification to system owners regarding system classifications, and system owners notify OpCert of required changes.
- Operator data is confirmed using the Remote Maintenance Worker (RMW) Program quarterly reports. The RMW Program is comprised of 15 circuit riders who provide technical assistance to approximately 200 rural communities across the State. RMWs report current operator information for each system they support on a quarterly basis, and OpCert uses this information to update operator data.

## Operator Qualifications (Baseline Standard 3)

### Exam Administration

To become certified, operators must pass exams and meet experience and education requirements. There are five levels of certification each in water treatment and water distribution and two levels in small water system operations. Exams are available for each level and offered in a variety of settings.

Exams are purchased from the Association of Boards of Certification (ABC). ABC exams are used by more than 70 certification programs representing over 40 states, 10 Canadian provinces and territories, as well as numerous international and tribal programs. ABC provides both paper and web-based versions of the standardized water treatment and water distribution exams for levels 1 through 4. The ABC standardized exams were developed through a rigorous psychometric process that included the use of in-depth job analyses surveys, development of “Need-to-Know” criteria from data acquired from the surveys, creation of exam items by subject matter experts, and beta testing of exams by operators in the United States and Canada. Alaska currently uses the ABC 2019 standardized certification exams.

Exams are administered on-demand in rural communities in addition to the biannual statewide paper-based exams and online exams. Applications for certification are not reviewed until after operators pass exams and it is the responsibility of the operators to submit applications. In

some cases, operators take exams at levels higher than previously passed exams knowing that they have not yet met the experience and education eligibility requirements for the higher levels of certification. In those cases, applications are not typically submitted immediately. For that reason, the number of exams passed often does not reflect the number of certifications issued.

As a result of the COVID-19 pandemic, the number of exams administered during SFY21 was fewer than recent years before the pandemic. This was due to tribal health corporations and private trainers limiting the number of in-person courses being offered, online testing centers closing, and the closing of schools where teachers administer paper-based exams.

- Due to the COVID-19 pandemic, OpCert administered only one statewide, paper-based exam cycle which occurred during the Fall of SFY21. One operator took one water-related certification exam in Prudhoe Bay, Alaska. The examinee passed the exam and later applied for certification. One exam cycle represents a month-long effort by OpCert staff in reviewing exam registration forms, scheduling proctor sites, mailing exams, notifying operators, and processing exam results.
- OpCert has been administering on-demand paper exams in rural communities since 2016. In SFY21, on-demand paper-based exams were administered in 27 rural communities to 34 operators who took 40 exams with 27 exams passed, resulting in 22 certifications. Applications for certification have not yet been submitted for the remaining five.
- Water treatment and water distribution provisional level exams were administered at three classroom and one online introductory courses taught by tribal health corporations and private trainers. Courses consisted of four days of instruction followed by the water treatment and/or water distribution provisional level exams. The small untreated and small treated exams were also administered at courses as needed. Forty-three operators attended the classroom courses, and 12 operators attended the online course. The 12 operators who attended the online course took their exams in one of 10 communities. Fifty-five operators took a total of 61 exams. Operators passed 32 exams, with 17 resulting in certification. Applications for certification have not yet been submitted by the remaining 15.
- Small treated exams were administered at three small treated water systems online courses taught by tribal health corporations. The online courses consisted of one to two-hour daily training sessions spread over two weeks, followed by the small treated exam. Forty-seven operators attended the courses and took 47 exams administered in 28 locations. Operators passed 38 exams, with 38 resulting in certification.
- Water distribution level 1 and 2 exams were administered at two combination level 1 and 2 courses taught by a private trainer. The courses consisted of four days of

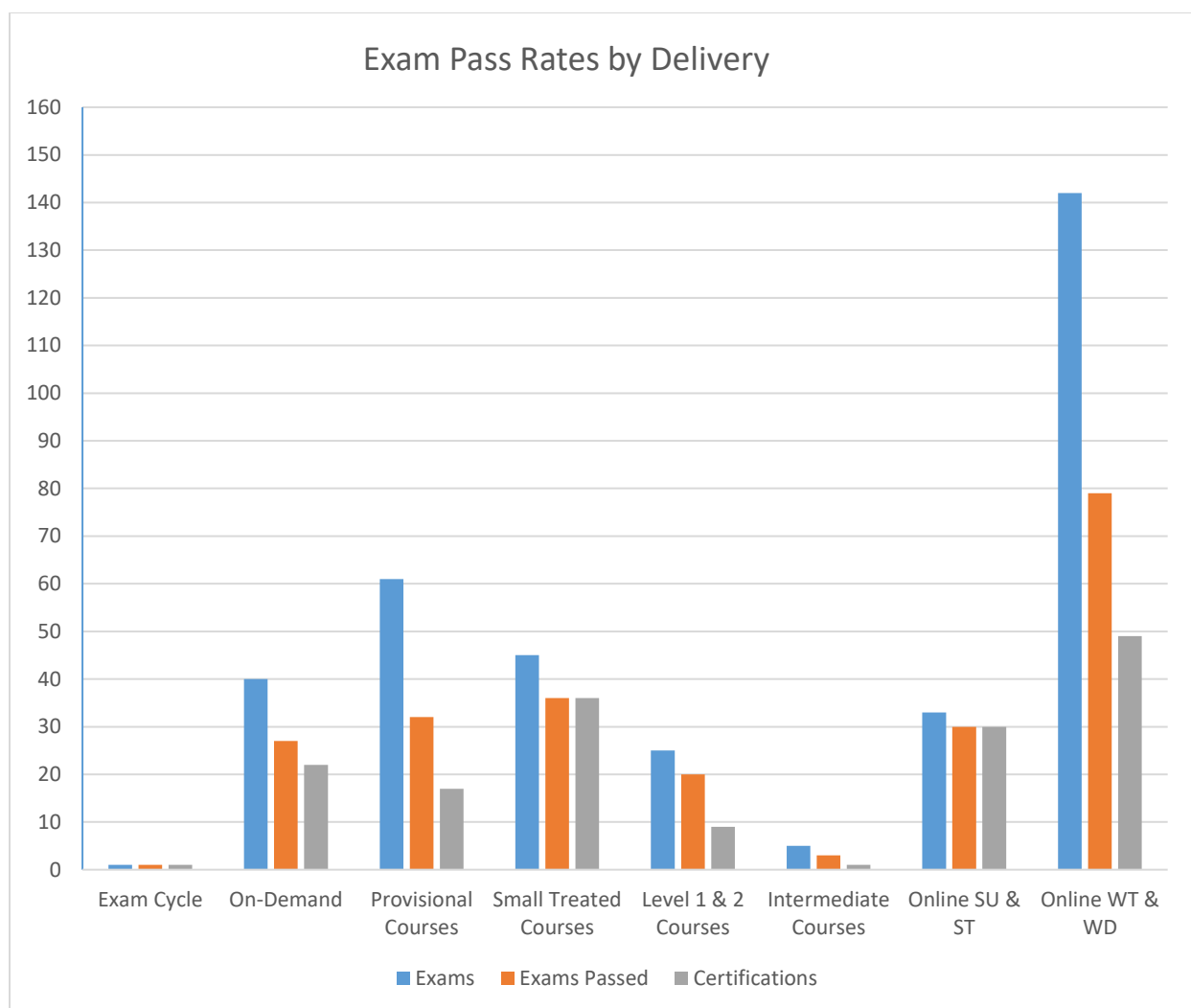
instruction followed by the water distribution level 1 or 2 exam. Twenty-five operators attended the courses and took 25 exams. Operators passed 20 exams resulting in nine certifications. Applications for certification have not yet been submitted for the remaining 11.

- Water treatment level 2 exams were administered at an intermediate water treatment course taught by a private trainer. The course consisted of four days of instruction followed by the water treatment level 2 exam. Five operators attended the course and took five exams. Operators passed three exams resulting in one certification. Applications for certification have not yet been submitted for the two remaining.
- Online certification exams for small untreated and small treated water system operators were available only at eight of 11 testing locations due to COVID-19 restrictions: Anchorage, Bethel, Fairbanks, Kenai, Ketchikan, Klawock, Kodiak, and Palmer. Thirty-three operators took online small water system exams with 30 passing, with all resulting in certification.
- Online water treatment and water distribution exams were available at 12 of 14 testing locations throughout Alaska due to COVID-19 restrictions: Anchorage, Bethel, Utqiagvik, Fairbanks, Homer, Juneau, Kenai, Ketchikan, Klawock, Kodiak, Palmer, and Valdez. The expedited registration process allows operators to be authorized for online exams in less than a month. Registration deadlines are the 1<sup>st</sup> of each month, and operators are authorized for exams by the 22<sup>nd</sup> of the same month. Operators are allowed 100 days from authorization to take exams. The OpCert database provides operators the convenience of online exam registration using credit cards to pay fees. Ninety-nine operators took 142 water treatment/distribution exams online. Operators passed 79 exams resulting in 49 certifications. Applications for certification have not yet been submitted for the 30 remaining who passed exams.

The following chart summarizes exam pass rates by delivery type.

Type	Exams	Exams Passed	Certifications
Exam Cycle	1	1	1
On-Demand	40	27	22
Provisional Courses	61	32	17
Small Treated Courses	45	36	36
Level 1 & 2 Courses	25	20	9
Intermediate Courses	5	3	1
Online SU & ST	33	30	30
Online WT & WD	142	79	49

**Table 3: Exam Pass Rate by Delivery Type**



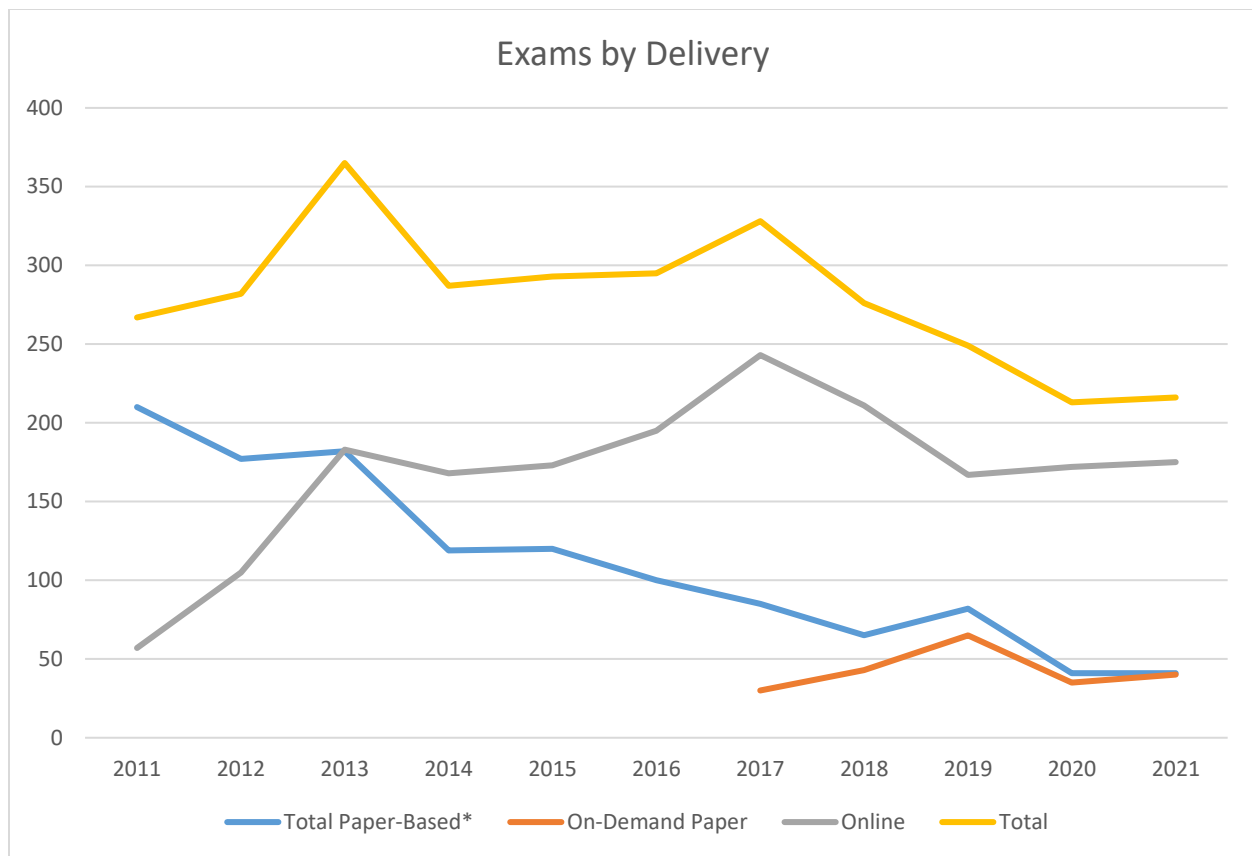
**Figure 5: Exam Pass Rate by Delivery**

The number of paper-based exams administered during the exam cycle has declined each year since online exams became available in 2011 due to flexible scheduling and instant scoring. The following chart summarizes the shift from paper-based exams to online exams.

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>Total Paper-Based*</b>	210	177	182	119	120	100	85	65	82	41	41
<b>On-Demand Paper</b>							30	43	65	35	40
<b>Online</b>	57	105	183	168	173	195	243	211	167	172	175
<b>Total</b>	267	282	365	287	293	295	328	276	249	213	216

\*Total Paper-Based is the exam cycle and on-demand paper exams and does not include paper exams administered at courses.

**Table 4: Paper-Based vs. Online Exams**



**Figure 6: Comparison of Exam Delivery**

For SFY21, the number of on-demand paper-based exams administered remained lower than in previous years due to health limitations as a result of the COVID-19 pandemic.

### Certification of Operators

After passing a certification exam, operators are required to demonstrate they have met education and experience requirements to obtain certification. The minimum education requirement for certification is possession of a high school diploma, GED, or relevant experience, substituting for the lack of education. Level 3 and 4 certifications require additional postsecondary education. Minimum experience requirements for certification are outlined in 18 AAC 74.050.

### Reciprocity

Reciprocity is evaluated on a case-by-case basis taking into consideration the experience and education requirements of the certificate the operator holds from the other state, the exam passed, and education and operations experience. By Statute, reciprocity cannot be granted for



certificates from states that do not grant reciprocity for Alaska certifications. Four water-related certificates were issued via reciprocity for SFY21.

## Enforcement (Baseline Standard 4)

OpCert continued to emphasize increasing exam availability and educating operators and systems about the certification requirements. As a result, OpCert staff spent significant time responding to requests for information regarding the certification requirements for large and small systems.

Historically, OpCert has focused on compliance assistance. In 2013, a Compliance and Enforcement Strategy was developed that outlines the enforcement process and describes a ranking system used to determine where OpCert will focus its efforts.

Additionally, the Drinking Water regulations (18 AAC 80) require that systems comply with the Operator Certification regulations (18 AAC 74). Therefore, DWP includes operator certification requirements as part of their enforcement actions, and both programs continue to work closely with non-compliant systems.

During SFY21, two Notices of Violation (NOV) were issued to water systems in conjunction with DWP. One NOV was issued to a water system for not having a properly certified operator. The other NOV was issued to another water system for not having a properly certified operator and for submission of a monthly operator report which included turbidity readings for an inline turbidimeter that was documents as non-functional during a sanitary survey.

## Efforts to Increase Compliance Rates

### Water Treatment and Water Distribution Systems

During the SFY21 reporting period, OpCert continued a quarterly schedule of analyzing the compliance status of systems. Compliance data was gathered, and systems were ranked using the method described in the Compliance and Enforcement Strategy. The ranking method considers factors such as system type, population served, source water, and system classification.

All systems, regardless of compliance status, were mailed letters, including a summary of the certification requirements, detailed system classification data, and operator information. OpCert received several responses from system owners with updated information and provided assistance regarding options for achieving compliance.

To enhance the tracking of compliance and enforcement, the water treatment and water distribution systems are divided up into geographical regions and assigned to one of the OpCert staff. This regionalized approach is also used by other ADEC programs, as well as technical assistance providers that support water systems, and allows “regional teams” to work together to address compliance issues. Additionally, enhancements were added to the OpCert database to assist in the tracking of compliance and enforcement. These enhancements will be discussed later in the Special Projects section of this report.

Weekly staff meetings were conducted to keep abreast of the status of non-compliant systems.

### Small Untreated and Small Treated Water Systems

All Small Untreated and Small Treated water systems, regardless of compliance status, were sent compliance notification letters. OpCert continued to track the compliance status of these systems and worked with operators to obtain certification.

As with the larger systems, the small water systems are divided up into geographic regions and assigned to one of the OpCert staff for more individualized attention. Additionally, OpCert conducted weekly staff meetings to keep abreast of the status of non-compliant systems.

### Agency Coordination Meeting

OpCert participated in agency coordination meetings in six rural regions of the State. Due to COVID-19 restrictions, all the meetings were conducted virtually. The meetings provided an opportunity to coordinate with agencies that work with rural Alaskan communities on issues related to sanitation. Other agencies participating in the meetings included regional tribal health corporation RMWs and sanitarians, the Rural Utility Business Advisor Program (RUBA), DWP, the ADEC Wastewater and Solid Waste Programs, and VSW and ANTHC engineers. During the meetings, OpCert described the compliance status of each rural community, received input from other agencies regarding community-specific issues, updated classification and operator information, and discussed options available to communities for achieving compliance.

### Compliance Rates

As reported in 2020, 81 percent of systems were in compliance by having a properly certified operator on staff. Currently, 80 percent of systems are in compliance.

OpCert conducted a review of systems that changed compliance status from 2020 to the present. Those findings are shown in Appendix A. The review shows that the overall compliance rate was affected by several factors:

- Systems achieving compliance (15 systems)

- New systems becoming active and achieving compliance (11 systems)
- Inactive systems becoming active and achieving compliance (1 system)
- New systems becoming active and still working toward compliance (4 systems)
- Systems upgraded in classification and still working toward compliance (1 system)
- Inactive systems becoming active and still working toward compliance (2 systems)
- Operator turnover where properly certified operators left a system (9 systems)
- Operators failing to renew certifications (6 systems)

### System Specific Training and Certification (S<sup>2</sup>TC)

Previous reports discussed efforts to develop 13 training modules and certification exams that will be used to train and certify operators of systems that are chronically out of compliance with the operator certification requirements. During SFY21, OpCert, in collaboration with the RMW Program, finalized five modules in preparation for S<sup>2</sup>TC Program beta testing. Two communities, all of which have long-standing operators who have not passed certification exams despite repeated attempts, have been identified for beta testing during SFY22.

### Operator Disciplinary Action

Per 18 AAC 74.830, OpCert, with the Board's recommendation, has the authority to impose disciplinary action for acts of misconduct by an operator. In SYF21, OpCert investigated two allegations of operator misconduct. One resulted in a letter of reprimand, and the other resulted in a finding of no misconduct.

### Certificate Renewal (Baseline Standard 5)

Operators are required to obtain continuing education every three years in order to renew certifications. Operators holding water treatment or water distribution certification are required to obtain three Continuing Education Units (CEUs), while operators holding Small Treated or Small Untreated certification are required to obtain one and 0.5 CEU, respectively. An operator who has obtained the required CEUs has up to one year to pay the renewal fee. However, the price of renewal increases over time during that one year, and the certificate is not valid until the fee has been paid.

Certificate	Renewed	Lapsed Certificate with CEU Requirement Met but No Payment	Lapsed Certificate with CEU Requirement Not Met
SU	18	4	11
ST	53	36	11
WT P	38	5	4
WT 1	62	1	4
WT 2	49	0	2
WT 3	28	0	0
WT 4	31	0	0
WD P	29	6	3
WD 1	60	8	5
WD 2	35	0	0
WD 3	17	0	0
WD 4	23	0	0
<b>Total</b>	<b>443</b>	<b>60</b>	<b>40</b>

**Table 5: Renewal Status for Certificates that Expired on December 31, 2020**

## Continuing Education

Alaskan operators earned continuing education through the following means:

- Classroom courses taught by a variety of organizations
- Correspondence courses
- Utility sponsored training
- Industry conferences
- Online training

During the SFY21 reporting period, OpCert recorded over 1,300 individual continuing education courses attended to operators' files. OpCert continued its support of training by approving 126 online and classroom courses. The Alaska Rural Water Association sponsored a statewide virtual conference.

## California State University Small Water System Videos

During the SFY21 reporting period, OpCert administered 23 of the California State University (CSU) *Small Water System* and *Water Systems Operation and Maintenance* correspondence type video series courses. The video courses are especially relevant to the operation and maintenance of small water systems and provide small system operators with the continuing education required to keep their certifications current.

## ADEC Introduction to Small Water Systems Correspondence Course

The Introduction to Small Water Systems manual is administered as a correspondence course by OpCert. This course qualifies operators for provisional level water treatment and distribution certification after passing the respective certification exams. Seventeen operators completed this course during the SFY21 reporting period.

## ADEC Small Untreated and Small Treated Water Systems Correspondence Courses

OpCert offers two correspondence courses targeting operators of small water systems. The Small Untreated Water System course qualifies operators for Small Untreated Water System certification after passing the certification exam. Five operators completed this course during the SFY21 reporting period. The Small Treated Water System course qualifies operators for Small Treated Water System certification after passing the certification exam. Thirty-two operators completed this course during the SFY21 reporting period.

## Presentations at Conferences

Typically, OpCert attends and conducts presentations at two industry conferences per year; however, due to COVID-19 restrictions, one conference was canceled and the other conducted virtually. OpCert presented virtually at the ARWA Annual Statewide Conference on topics covering operator certification including the importance of certification, exam preparation, the exam/certification process, and online operator profiles.

## Resources Needed to Implement the Program (Baseline Standard 6)

OpCert is funded from two sources: Program Receipts generated from fees charged for exams, application reviews, certificate renewals, and reciprocity reviews; and the Drinking Water State Revolving Fund (DWSRF) Local Assistance and Other State Programs Set-Aside.

OpCert staff consists of one program manager, three full-time professional-level staff, and one part-time college intern. OpCert staff provides all services related to operator certification including administration of exams, review of certification applications, classification of water systems, review of training courses for continuing education, and compliance and enforcement of water systems. OpCert has a customized database to track all data related to operator certification. This database is maintained via a five-year contract with Wostmann Associates.

Under the current organization, and with the present level of funding, Alaska has sufficient resources to implement the OpCert Program for the foreseeable future. For several years, the DWSRF Small System Technical Assistance Set-Aside has not been used; those banked funds will be made available to OpCert should the need arise in future fiscal years.

## Recertification (Baseline Standard 7)

Certificates are valid for a three-year period beginning on January 1 of the year of issuance. Once a certificate has expired, the operator is no longer certified. To regain certification, an operator must take and pass the exam and then apply for certification. Operators are allowed to take the exam at the level of the expired certificate for three years after expiration. After three years, operators must retake exams sequentially starting at level 1.

## Stakeholder Involvement (Baseline Standard 8)

Stakeholder involvement is important to meeting the public health objectives of Alaska's Operator Certification Program. It helps ensure the relevancy and validity of the program, and instill confidence in all interested parties. In recognition of this, Alaska employs various strategies to include ongoing stakeholder involvement including an advisory board.

### The Governor's Water and Wastewater Works Advisory Board

The Governor's Water and Wastewater Works Advisory Board (Board) is a group of eight water/wastewater professionals established to advise ADEC on matters of operator certification and training. The current Board is comprised of certified operators, public works personnel, trainers, and engineers. New members to the Board are appointed by the Governor. The Board generally meets every 9 to 18 months, as needed. Due to travel restrictions from the COVID-19 pandemic, the Board met virtually on October 13, 2020, and June 2 – 3, 2021.

During the October 13, 2020 meeting the following items specific to program review were discussed:

- The Board reviewed an Alternate Method of System Supervision (AMOSS<sup>2</sup>) plan submitted by the City of Palmer and approved it through December 31, 2021.
- The Board reviewed allegations of misconduct in the operation of the City of Bethel's water treatment plant by one of its operators. After a review of the evidence produced by OpCert staff, the Board recommended no disciplinary action should be taken against the operator.

During the June 2 – 3, 2021 meeting the following items specific to program review were discussed:

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<sup>2</sup> AMOSS Plans are required for systems that are temporarily unable to staff with an operator certified to the level of the system. System owners must submit plans that describe current system supervision, how the utility proposes to operate without a suitably certified operator, and the process they will follow to come into compliance with the regulations. Plans are considered by the Board who then makes a recommendation to OpCert regarding approval or denial.

- The Board reviewed the statuses of the Lower Kuskokwim School District (LKSD) and Kenai Peninsula Borough (KPB) AMOSS plans. The Board recommended that the LKSD AMOSS plan and the KPB AMOSS Plan, which had been approved during a previous meeting, be approved for an additional year.
- The Board reviewed the information provided by the three contract operator companies that provide operational services to small water systems located in the Anchorage area. The three companies collectively operate and maintain 201 water systems. The Board reviewed information such as the number of systems operated by each company, frequency of visits to the systems, Drinking Water compliance, and the number of certified operators working for each company.
- The Board reviewed one AMOSS plan submitted by a new contract operator company and approved it for one year.
- OpCert staff presented four AMOSS plans that had achieved the requisite certifications. With the systems now staffing with a properly certified operator as required by regulations, the plans were no longer needed and were closed.
- The Board reviewed allegations of misconduct in the operation of the Too'gha Inc - in Tanana water treatment system by an uncertified operator. After a review of the evidence produced by OpCert staff, the Board recommended the Department issue the operator a letter of reprimand, with a copy to be placed in the operator's file.
- OpCert provided the Board with an update of program activities, including certification exam results, online operator profiles, participation in ABC exam development, System Specific Training and Certification, and enforcement efforts.

## Program Review (Baseline Standard 9)

The Facilities Program Manager and the Technical Assistance and Financing (TAF) Program Manager assist in conducting periodic peer review meetings of the Operator Certification Program's processes, procedures, and data management. The Operator Certification Program's three Environmental Program Specialists (EPS) are each assigned to work with water systems in a geographic region of Alaska, consistent with the regional assignments of RMWs and Local Government Specialists with the RUBA Program. This allows each EPS to develop a relationship with the system owners and operators in their regions, as well as the technical assistance providers that support them, thus enhancing communication. This approach has also improved program efficiency and effectiveness. Additionally, weekly system compliance meetings are conducted to keep the TAF Program Manager and the Operator Certification Program Manager abreast of the compliance status of the systems in each EPS's region.

## Special Projects during the SFY21 Reporting Period

In addition to the routine work of the Operator Certification Program, OpCert staff spent significant time and effort on special projects during SFY21.

- Enforcement Enhancement to the OpCert Database
- Introductory and Intermediate Water Distribution Course Development
- Water System Excellence Award
- Small Untreated and Small Treated Water Systems Course Development

### Enforcement Enhancement to the OpCert Database

During SFY21, the contractor from Wostmann Associates, along with OpCert staff, worked on the development of an enforcement tracking enhancement to the OpCert database. This enhancement's goals were:

1. To modify the enforcement actions to include milestones, due date, status, and priority;
2. To allow for the search of enforcement actions based on a due date, milestone status, contact type, or staff member;
3. To generate a report based on the search conditions of #2; and
4. To designate which systems are currently operating under an approved AMOSS plan.

The system record was modified to include the ability to log enforcement actions. The Log Enforcement dialog box, Figures 7 and 8, allows staff to enter information concerning an enforcement action or contact with a system related to enforcement. Figure 9 shows the enforcement actions log for a system.

System ID: 260058 ☐ AMOSS In Effect ☒ Certified Operator Required?

Facility Name: Atka Water Treatment System

System Size: Small RMW Region: DEC

System Type: Water Treatment Community: Atka

System Class: Class 2 View Classification Info Last Class. Date: 11/26/2016

Owner Name: Atka, City of

Contact: Jennifer Kost-Dirks Telephone: (907) 522-0384

Address: 8427 Laviento Drive Suite 104 Home Phone:

City, State, Zip: Anchorage AK 99515 Fax: (907) 522-0385

Email: dec.opcert@alaska.gov

☒ Ignore SDWIS Address? **NOTE** Log Contact Log Enforcement

**Figure 7: System Record with Log Enforcement Button**



**Figure 8: Enforcement Action Log Dialog Box**

Operators	SDWIS Treatment	Enforcement Actions	System Notes	T.A. Providers								
	Date	Initiator	Comm. Type	Due Date	DEC Emp.	System Rep.	Status	Milestone	Priority	Description	Init By DEC	Completed
	07/23/21	System	Event			Jonathan Zaach...	Closed			Exam scheduled	<input type="checkbox"/>	
	01/25/21 11...	Operator Certification Program	Out of Compliance Letter 1	04/30/21	msuzuki	Jennifer Kost-Dirks	Closed	Check-in		Out of Compliance Lette...	<input type="checkbox"/>	
	01/20/21 11...	Operator Certification Program	Out of Compliance Letter 1		msuzuki	Jennifer Kost-Dirks	Closed			Out of Compliance Lette...	<input checked="" type="checkbox"/>	
	01/30/20 1:...	Operator Certification Program	Letter		ascunningham	Jennifer Kost-Dirks	Closed			Compliance letter deliver...	<input checked="" type="checkbox"/>	
	01/27/20 3:...	Operator Certification Program	Letter		kahaug	Jennifer Kost-Dirks	Closed			Notification - Out of Com...	<input checked="" type="checkbox"/>	
	05/16/19	System	Event			Michael Swinney	Closed			Exam failed	<input type="checkbox"/>	
	05/16/19	System	Event			Michael Swinney	Closed			Exam failed	<input type="checkbox"/>	
	05/16/19	System	Event			Michael Swinney	Closed			Exam failed	<input type="checkbox"/>	
	05/09/19	System	Event			Michael Swinney	Closed			Exam scheduled	<input type="checkbox"/>	
	02/21/19 9:...	Operator Certification Program	Letter		ascunningham	Julie Dirks	Closed			Notification of noncompl...	<input checked="" type="checkbox"/>	
	04/25/18	System	Event			Michael Swinney	Closed			Exam failed	<input type="checkbox"/>	
	04/18/18	System	Event			Michael Swinney	Closed			Exam failed	<input type="checkbox"/>	
	04/11/18	System	Event			Michael Swinney	Closed			Exam scheduled	<input type="checkbox"/>	
	02/23/18	System	Letter		KS	Julie Dirks	Closed			Delivery confirmation	<input type="checkbox"/>	
	02/20/18	Operator Certification Program	Letter		KS	Julie Dirks	Closed			Notification of non comp...	<input type="checkbox"/>	
	06/12/17	Operator Certification Program	Letter		KS	Julie Dirks	Open			Notification of noncompl...	<input type="checkbox"/>	
	09/25/15	System	Event			Jonathan Zaach...	Closed			Exam scheduled	<input type="checkbox"/>	
	09/25/15	System	Event			Jonathan Zaach...	Closed			Exam failed	<input type="checkbox"/>	
	12/04/14	System	Event			Christopher Maly	Closed			Certificate issued	<input type="checkbox"/>	
	11/19/14	Operator Certification Program	Letter		MS	Jukie Dirks	Closed			Notification of noncompl...	<input type="checkbox"/>	

**Figure 9: Enforcement Actions**

With the ability to enter milestones and due dates into an enforcement action, new capabilities were added to allow for searching under these parameters, see Figure 10 and to print enforcement action reports, see Figure 11.

**Figure 9: Enforcement Search**

System Id	Facility Name	Type	Class	Comm Type	DEC	Status	Milestone	Priority	Due Date	Completed?
120591	Yes Bay Lodge Water System	Small	T	Walk-in	Yes	Closed	Check-in	Low		No
260058	Atka Water Treatment System	WT	2	Out of Compliance Letter 1	No	Closed	Check-in		4/30/2021	No
300159	Minto Community Water System	Small	T	Phone	Yes	Closed	Check-in	Low	3/6/2021	No
360109	Too'gha Inc - in Tanana Water Treatment System	WT	2	NOV	Yes	Closed	Check-in	High	12/28/2020	Yes
385	Palmer Wastewater Treatment System	WWT	2	AMOSS	Yes	Open	Check-in	Low	12/8/2020	No
386	Palmer Wastewater Collection System	WWC	2	AMOSS	Yes	Closed	Check-in	Low	12/8/2020	Yes
525	Palmer Water Distribution System	WD	2	AMOSS	Yes	Closed	Check-in	Low	12/8/2020	No

**Figure 11: Enforcement Action Report**

Many water systems are currently operating under approved Alternate Method of System Supervision (AMOSS) Plans. Previously, the OpCert database did not track these systems.

## Small Untreated and Small Treated Water Systems Course Development

Small untreated (SU) and small treated (ST) water systems are community or non-transient non-community water systems that serve fewer than 500 people, contain fewer than 100 service connections, and either add no chemicals or one chemical for treatment, respectively. To be eligible for certification, an operator must pass the certification exam and either meet the experience requirement for certification or complete a department-approved course. The department-approved courses are currently administered as correspondence courses using manuals developed in 2002. From 2004 to 2019, online versions of the course were available and were most recently hosted by the water/wastewater program at the University of Alaska, Southeast (UAS) in Sitka; however, the UAS program was eliminated in 2019 and along with it the SU and ST online courses.

In the spring of 2020, OpCert solicited proposals for the development of a small untreated and small treated online training course, study modules, and consolidation of the small untreated manual and the small treated manual into one single manual. The intent is to “refresh” the manual and make online courses available again. It is anticipated that the course development contract will be completed by the end of SFY22.

## Water System Excellence Award

The Water System Excellence Award (WSEA) is a joint venture between OpCert and DWP. The WSEA recognizes water systems that achieve outstanding performance in the operation of their systems. The WSEA has two tiers, Ursa Major and Ursa Minor. To earn the Ursa Major award, a water system must maintain four quarters of operator certification compliance with no open, unresolved, or incurred drinking water violations during the award year. To earn the Ursa Minor award, a water system must maintain four quarters of operator certification compliance with no more than one open, unresolved, or incurred drinking water violation during the award year, or maintain three quarters of operator certification compliance with no open, unresolved, or incurred drinking water violations during the award year. It is anticipated for the 2020 award year, 299 will be awarded Ursa Major and 85 will be awarded Ursa Minor.

## Implementation Schedule Update

Program implementation will proceed as follows over the next year:

- Maintain the current level of exam availability by offering exams on-demand in rural communities, during the biannual exam cycles, in conjunction with courses, and in an online format.

- Continue efforts to develop the training and exam materials required for the System Specific Training and Certification Program and move forward with program implementation.
- Continue with implementation of the Compliance and Enforcement Strategy through a quarterly analysis of compliance data and targeted communication to systems, taking advantage of OpCert’s approach to offering exams on-demand in rural communities.
- Continue efforts to consolidate operator certification and capacity development functions under the Capacity Development and Operator Certification Program.

### Certification Challenges in Rural Alaska

Rural Alaskan water operators face many challenges and obstacles in obtaining certification not often seen in the contiguous United States. Due to Alaska’s vast distances and severe weather changes, operators frequently experience difficulty in traveling to “hub communities” to obtain relevant training to prepare for certification exams. Additionally, many rural communities may not have the funding to send their operators to training. In those cases, online training may be an option; however, many rural communities lack adequate internet access; therefore, many rural operators are unable to attend and/or complete online trainings.

Language and education barriers are also significant challenges to rural operators passing certification exams and obtaining certification. Some rural operators speak primarily Alaskan Native languages and have English as a second language. Many rural operators also have relatively limited formal schooling, with some not having completed high school or equivalent.

Frequent operator turnover is also a significant challenge for rural Alaskan water systems. Some factors that lead to higher turnover in rural communities include low wages, difficult working conditions, and the need for some operators to spend considerable time in subsistence activities, such as hunting and fishing. Due to these factors and others, many rural communities struggle to employ properly trained and certified operators on a long-term basis.

# Appendix A

## Changes in Compliance

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## Water Treatment Systems

System	Class	July 2020	July 2021	Comments
Beaver	WT 1	Out of Compliance	In Compliance	
CRNA Tazlina Health Clinic	WT 2	In Compliance	Out of Compliance	Operator turnover
Dillingham	WT 1	In Compliance	Out of Compliance	Operator certificate expired
Lower Kalskag	WT 1	In Compliance	Out of Compliance	New water treatment system came online. Reclassified from Small T to WT 1
Cruz Construction #1	WT 1	Inactive	Out of Compliance	System reactivated with no certified operator
Echo Ranch Bible Camp- Juneau	WT 1	No system	Out of Compliance	New system

## Small Untreated and Treated Water Systems

System	Class	July 2020	July 2021	Comments
Chignik Lagoon	Small T	Out of Compliance	In Compliance	
Clover Pass Christian School	Small T	Out of Compliance	In Compliance	
Denali Backcountry Lodge	Small T	Out of Compliance	In Compliance	
Highland Trailer Park	Small U	Out of Compliance	In Compliance	
Koyuk	Small T	Out of Compliance	In Compliance	
Minto	Small T	Out of Compliance	In Compliance	
Orion Marine Man Camp - Cape Lisburne	Small T	Out of Compliance	In Compliance	
Peter Pan Seafood Port Moller	Small T	Out of Compliance	In Compliance	
Pitka's Point	Small T	Out of Compliance	In Compliance	
Shageluk	Small T	Out of Compliance	In Compliance	
Tanacross	Small U	Out of Compliance	In Compliance	
Trail Lake Lodge & Motel	Small T	Out of Compliance	In Compliance	
Wales	Small T	Out of Compliance	In Compliance	
YKSD - Merriline Kangas / Ruby	Small U	Out of Compliance	In Compliance	
Firedance Tutoring Center	Small U	Inactive	In Compliance	
Clear AFS LRDR	Small U	No System	In Compliance	New system
Fort Wainwright DRMO	Small T	No System	In Compliance	New system
Kake Access Road 66 - Man Camp	Small U	No System	In Compliance	New system
LKSD Quinhagak & Teacher Housing	Small T	No System	In Compliance	New system
Mountain Glory Subdivision	Small U	No System	In Compliance	New system
Nikiski Refinery Modular Offices	Small U	No System	In Compliance	New system
Palmer Lifeways Daycare Center	Small U	No System	In Compliance	New system
TCC Upper Tanana Health Clinic	Small U	No System	In Compliance	New system
Trapper Creek	Small U	No System	In Compliance	New system
Valley Business Center	Small U	No System	In Compliance	New system
Yuyan Subdivision	Small U	No System	In Compliance	New system



System	Class	July 2020	July 2021	Comments
Amazing Grace Lutheran Church	Small U	In Compliance	Out of Compliance	Operator certificate expired
Birchtree Charter School	Small U	In Compliance	Out of Compliance	Operator turnover
Chignik Lake	Small U	In Compliance	Out of Compliance	Operator turnover
College Park Home Owners Assoc	Small T	In Compliance	Out of Compliance	Operator certificate expired
El Capitan Lodge	Small T	In Compliance	Out of Compliance	Operator certificate expired
Midnight Sun Family Learning Center	Small U	In Compliance	Out of Compliance	Operator turnover
Nondalton	Small T	In Compliance	Out of Compliance	Operator certificate expired
Nugens Ranch (Point Mackenzie)	Small U	In Compliance	Out of Compliance	Operator turnover
Snowshoe Acres LLC	Small U	In Compliance	Out of Compliance	Operator turnover
Takotna	Small T	In Compliance	Out of Compliance	Operator certificate expired
Timber Ridge Condominiums	Small U	In Compliance	Out of Compliance	Operator turnover
Twin Hills	Small U	In Compliance	Out of Compliance	Operator turnover
Venetie	Small T	In Compliance	Out of Compliance	Operator turnover
Southeast Alaska Logging Camp	Small T	Inactive	Out of Compliance	System reactivated with no certified operator
ASRC Rig Tenders Well #3	Small T	No System	Out of Compliance	New system
Echo Ranch Bible Camp - Haines	Small T	No System	Out of Compliance	New system
Three Bears Corporate Office	Small U	No System	Out of Compliance	New system

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